THE VETERINARY RECORD

A Weekly Journal for the Profession.

EDITED BY WILLIAM HUNTING, F.R.C.V.S.

No. 95. SATURDAY, MAY 3, 1890. VOL. II.

EDITORIAL NOTES.

The original Charter of 1844 specially provides for an Annual General Meeting, and directs when and where it shall be held. It orders that special advertisement of the meeting shall be made, and seems to imply that it is no mere formal conventionality but a most important gathering of the profession.

We believe that the spirit of the Charter should be maintained and that our annual gathering should be looked upon as a most important privilege. It is the time—the only time—when the profession is able to review the work of its Council. The Annual Report contains, or should contain, reference to all important matters which have been considered by the Council during the past year. The report has to be approved—not hastily, not indifferently; it should be carefully studied, and approval withheld if it does not carry to the mind a clear conviction that the Council has done well.

On Monday next occurs the only opportunity in the year for directly indicating to our governing body the wishes of the profession. The obstructionist and the disaffected have the power to waste time and try the patience of the meeting; the apathetic and the time-servers have only to give a silent vote to perpetuate stagnation. Between these extremes the true reformer has surely a sufficient margin for timely remonstrance or well-meant encouragement. Too much activity we need not fear—our besetting sin as a Body Coprorate is indifference, and a stupendous faith in the wisdom of those to whom is entrusted our professional existence.

The Royal College of Surgeons has a worse "Ninth Clause" than we have, but they are making great efforts to get rid of it. A Bill with this object will be introduced to Parliament by Lord Dunraven and the whole subject has been thoroughly discussed by Sir Morell Mackenzie in the *Fortnightly Review*. He is confident the movement will be successful, and says: "It is easy to forecast the issue of the struggle which is now perhaps only beginning. It is in reality a part of a great wave of professional opinion which is slowly but surely rising and gathering force to sweep away the rottenness of constitution, the inertness, inefficiency, evil traditions, and scandalous abuses of all kinds, owing to which our medical corporations, instead of aiding, have seriously obstructed the course of scientific progress." We certainly are not so bad as the condition here described, but we are in a position which calls loudly for change. Our list of Fellows is not increasing. That of our Members is, and the dissatisfaction felt at their being debarred from any personal participation in the government of the profession is spreading deeper and wider. Veterinary Medical Societies all over the kingdom have voted against the "Ninth Clause" at their meetings. If such votes are not merely abstract resolutions we should find some evidence of the profession's feeling in the pending election of Council. The candidates may be roughly divided into those for and those against the Ninth Clause. We shall be curious to see how the whole profession indicate on their voting papers their interest in this much-discussed question.

What encouragement does the Royal College of Veterinary Surgeons give to professional education? Not a single certificate, not a solitary medal, not a prize of any kind have we ever known to emanate from Red Lion Square!! We grumble at the quality of the students, we speak disrespectfully of the teaching at the schools, but not a particle of encouragement do we offer. The Body Corporate is certainly not rich, but we are making a profit of about £500 a year and we possess a capital of over £5,000. We might well afford to devote £50 a year to encouraging a higher standard of scientific proficiency in our graduates. The School of Research just founded by the joint action of the Royal Colleges of Surgeons and Physicians does not confine its privileges to medical graduates. A session at this Institution to any man who had adopted some special subject for study would be most valuable. Want of means is what too often stops our men from attempting any research. A prize of £50 per annum, with conditions as to its expenditure, might encourage professional education, help to elucidate many points of practical interest, and give us an ever-increasing number of members capable of conducting scientific enquiries into outbreaks of disease. The subject is at any rate worth consideration.

We referred recently to the Museum which has been altered and improved to some extent. Its great want now is specimens, and few practitioners are unable to contribute. In nearly every private surgery are to be seen really good specimens of disease or its products. These now gratify only the owner but, if presented to the Museum of the Royal College, might help to complete a series, or even by themselves afford instruction and interest to many.

CASES AND ARTICLES.

"AZOTURIA."

By a Young Practitioner.

It has often been a cause of wonder to me why this disease should be so much ignored by our veterinary authors. It cannot be either that it is so very uncommon, or that the diagnosis and proper treatment is of no importance to the profession.

I can recollect some fourteen or fifteen cases which have come under my notice during these last three years, and it is of great importance that we should know the best method of treatment, for it is one of those maladies in which 'from the sudden appearance and severity of the attacks' our services are certain to be required; as stablemen and quacks are afraid to take the case in hand.

Well do I remember the first case I saw; the subject was a bay hunting mare, which had been doing nothing for two or three days, and was taken out for a canter. She was very "fresh" for about half a mile, when all at once it was noticed that she was getting heavy in hand and progressed with difficulty. The rider dismounted, had a look over her, and when he attempted to lead her forward he found that it was with the greatest difficulty she could advance, but he managed after a fair share of patience and persuasion to get her home. When in the stall she broke out into a most profuse perspiration, pawed with her forelegs, stood with her hind ones apart, made frequent attempts to urinate, and her countenance wore an aspect of great excitement. After about fifteen minutes she passed (not without some difficulty) a large quantity of very thick blood-like urine, as a result of which she appeared to be greatly relieved. The large muscles over her quarter had become swollen and tense, and I may as well remark here that in the majority of cases I have seen, some of the large muscles always were more or less swollen. I remember two cases in which the stiffness was entirely in the front legs, and in these cases the caput muscles were enlarged enormously, and quite hard. I should like to elicit some opinions as to the cause of these swellings.

This disease generally attacks horses which have been allowed to stand in the stable for a few days following a spell of hard work.

I only recollect two cases where the horses fell, and one of them died in about two hours afterwards. The second case regained his feet in about twenty-four hours.

The characteristic symptoms in all cases I have seen were the suddenness of the attack, almost complete loss of progression, and the characteristic high coloured urine.

The treatment I have always seen adopted, and which I have practiced myself, is to administer a physic ball, give fever medicine every three or four hours, put blankets wrung out of hot water over the horse, and use means to get him to urinate.

The only case which did not get all right under this treatment was the one recorded above which fell, but of course he died without giving it a chance.

I trust that some more experienced practitioner may be induced to give us his views on this subject.

A BARE SUBJECT.

By "Emigrant."

The following may prove of interest to some of your readers. On March 15th I was asked by a client to look at a very fair half-bred colt, 12 months old this season. I had seen him on several occasions, almost from the time he was cast till sometime in November, when he appeared in good health and growing away well. The colt has been running all through the winter and owing to the mild weather the keep has been very good. When I saw him on the 15th March, his four legs were more or less enlarged, particularly about the knees and hocks. He was not looking in bad health in other respects, and except that he moved stiffly he did not appear much amiss. His owner informed me that he was all right three or four days previously, when last seen. I had the colt put in a loose box and examined his legs, and found as I expected, that they were enlarged by œdema. The hair came off with little trouble *below* the hocks and knees, as if they had been blistered or scalded, at that time the hair was firmly attached to all other parts of the body. I gave it as my opinion that the colt was suffering from want of a more nutritious diet, but the owner could not believe this, because other colts had been running in the same field all the time and at the same age, and were doing well.

At all events, this colt was kept in the box and had plenty of good hay and about a gallon of oats, besides bran, daily. I prescribed ʒss. Liq Arsenicalis to be put in the drinking water once a day. I saw him three or four days afterwards, when the attendant said he was eating all that was given him without any trouble. I found his legs going back to their natural size, but on putting my hand over the higher parts of his legs I found the hair came off as it had done on the lower portions. I did not think much of this, because the whole of his legs had been affected from the first.

As he appeared to be doing fairly well, I continued the same treatment for four or five days longer, when on my next seeing him, what was my surprise to see him literally denuded of hair from head to tail, the hair of the latter with the mane being the only portions which had not come off. I never saw such an object in my life. If the colt had been lathered and shaved, he could not have been half so well deprived of his natural covering, there was no sign of any new hair forming at this time, and on several parts of his body, especially over the neck and some parts of his legs, large patches of scales were coming off. He was now "hide-bound," and although still feeding well, and taking besides, plenty of boiled linseed and cod liver oil, he gradually lost flesh, and about a month after he was seen by me he began to fail in his hind legs, and

then went down, and could not rise without help: he continued in this state for a few days and then finished his career in this world.

I made a *post-mortem* examination, 12 hours after death, but, I daresay like many more practitioners situated in a country district, I could not make such an examination as would be made, say at the College, Camden Town, but I was able to satisfy myself that the whole of the viscera was in a good state of health, except on some parts of the small intestines, where I found a few elongated spots about the size of horse beans, perhaps one to two dozen: I found none on the large bowel. The stomach contained partly digested food and a few bots. The cæcum and colon contained a large number of strongyles, some of which I send you, Mr. Editor. They are, I presume, the Strongylus Tetracanthus; there were certainly not less than 200 or 300. All the other portions of the bowels were free from them. No worms were ever seen to pass with the fœces by anyone, and I did not suspect my patient to be suffering from them. I should much like to know whether it is your opinion the strongyles had anything to do with the colt's "jacket" coming off; I think myself they must have caused all the mischief. I may mention before the colt died the new coat was making its appearance in places.

A CASE OF AZOTURIA.

By C. W. Crofts, M.R.C.V.S.

About a fortnight ago I was called to a case of the above-named disease shewing itself in a very unusual way. The subject was a grey gelding rather coarsely bred, and about five years old, the owner a jobmaster, had lately purchased him from a farmer who had never had the animal stabled. The animal was at once put to work, and a few days afterwards the driver found him suddenly appear very sluggish but continued to drive him and managed to get home with him; thinking he was griped gave a colic draught he had by him, shortly after getting which he passed a great quantity of very highly coloured urine, and in about three minutes (according to the owner) a large swelling appeared on either shoulder in the triceps muscles and also in front of the breast. A dose of physic was given to the animal and fomentation ordered to the swellings. Next morning the swellings were less and they continued to disappear and the animal was at work again in about five days.

THE FLEMING RELIEF FUND.

It is not my intention to question the wisdom of either Dr. Fleming or Mr. Dollar in going to law, neither is it my intention to question the propriety of Professor Axe's or Sir Henry Simpson's proceedings, in asking that one of the litigants shall receive an acknowledgement for having allowed the actions to be stayed. What does concern me, and every member of the profession, is to know whether Professor Axe and Sir H. Simpson, who hold an unblemished reputation for honour and integrity, have, as you suggest, endeavoured to accomplish the end they have in view, by resorting to falsehood and misrepresentation.

I have before me the private circular jointly signed by Professor Axe and Sir Henry Simpson, also your editorial remarks upon the statements contained in it, and I give below extracts from each:—

From the Private Circular.

"It should be known that Dr. Fleming has throughout the negotiations placed himself unreservedly in the hands of those who desired to stay legal proceedings, notwithstanding that in June last Mr. Dollar admitted a libel and paid 40/- damages into Court. (*Times* Report. High Court of Justice, Queen's Bench Division June 21st, 1889.)"

Editorial Statement in "The Veterinary Record" of April 26th, 1890.

"The statement that Mr. Dollar admitted a libel is simply false. From beginning to end he denied the libel."

I now turn to the *Times* of June 21st, 1889, and find the following:—

1.—Mr. Dollar's Counsel says:—

"The defendant (Dollar) admitted that in the heat of discussion he used words of the plaintiff (Fleming) (being those complained of) which were not wholly justified by the facts herein stated, and cannot be considered in every respect fair comment, and he brought into Court 40/- as sufficient to satisfy plaintiff's claim."

2.—Lord Coleridge in giving judgment says:—

"There was a publication, admitted to be libellous, and as to which the defence set up in substance was this:—A number of facts were set forth, and the defendant said in effect, that whether they justified the whole of the libel he did not know, but assuming that they did not, he paid into Court 40/- in respect of those parts of the libel which it did not cover."

3.—Mr. Justice Hawkins in concurring, said:—

"The defendant justifies those parts of the libel which the facts stated may be sufficient to justify and pays 40/- into Court as to the rest."

Public journalists have duties, which on emergencies they must exercise, no matter what their private predelictions may be, and as a man of honour, I hope you will see the propriety of publicly and completely exonerating Professor Axe and Sir Henry Simpson from the charges of falsehood and misrepresentation so heedlessly made.

Yours faithfully,

A Reader of "The Veterinary Record."

[We willingly insert the above, which arrived just as we were going to press and therefore too late for us to verify the quotations.

The proceedings referred to in the *Times* were simply a fight for position—a mere attempted *technical pleading*, which was not allowed by the Court and therefore never became a defence.

This must have been known to Professor Axe and Sir Henry Simpson.

The only defence admitted in Court to Dr. Fleming's action was "that the words complained of were and are fair comment on a matter of public interest, and were and are true in substance and in fact." This was the defence to the writ; it was the defence in November when the memorial first appeared, and it was the defence

in January when the settlement was made. Professor Axe and Sir Henry Simpson must have known this!

If they knew it their reference to the pleadings in June was, we repeat, a *suppressio veri* and a *suggestio falsi*. If they did not know it they were incompetent to give a true and impartial version of the matter to the men who signed the memorial on the bare faith of their word, and instead of being guilty of misrepresentation are only guilty of ignorance.

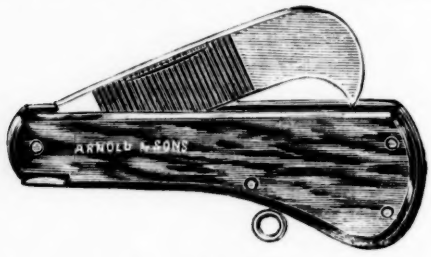
When we are in a position to determine on which horn of this dilemma Professor Axe and Sir H. Simpson prefer to impale themselves we may be able to exonerate them from one of the charges.—Ed.]

EMBRYOTOMY KNIVES.

By J. B. Unsworth, M.R.C.V.S., Market Drayton.

The annexed Woodcuts represent these knives.

No. 1. Pocket Embryotomy Knife.



This is a most convenient and strong instrument with a bill hook, fits nicely into the palm of the hand and is very easily used. It is very light and of great practical use.

No. 2.

This although called an Embryotomy knife, as in such cases it proves of the greatest service, I have used more particularly for lancing abcesses in the throat, also for cutting through Turnips, &c., in cases of choking. I have found this a most useful instrument, there being no danger in its use as the blade is guarded, and by removing the pressure employed by the index finger the cutting edge disappears into its sheath. There is a hole in the handle to attach a cord and tie to the wrist should the instrument fall from the hand.

They are manufactured by Messrs. Arnold & Sons, London.

VETERINARY MEDICAL SOCIETIES.

CENTRAL VETERINARY MEDICAL SOCIETY.

At the monthly meeting, held at the First Avenue Hotel, on Thursday 1st inst., the following paper was read:—

"TIS ONLY A PIN."

By Professor Walley, of Edinburgh.

Mr. President and Gentlemen,

The title I have chosen for this paper will doubtless appear, at first sight, somewhat insignificant; but small though a pin usually is, it is capable of producing an incalculable amount of mischief when it is introduced into the internal organism of an animal, and the title used here is only employed as a text upon which to discourse for some little time on a subject of the highest importance both to the veterinary surgeon and his patients.

I propose to-night to consider the effect produced by the accidental ingestion—by animals—of sharp foreign bodies, and of these I take the pin as a type. To a town audience the fact that cattle are the most frequent sufferers from such accidents as the ingestion of foreign bodies may lessen somewhat the attractiveness of the subject, but I hope to be able to deal with it in such a manner as to invest it with a sufficient amount of clinical and pathological interest to make it of use to all present.

The animals most subject to injuries by foreign bodies are in the order named:—Cattle, Dogs, Cats, Poultry, Horses, Pigs, and Sheep.

The method of prehension in the ox is an ample explanation of the pre-eminence attained by that animal in this direction; not only so, but the further fact that the dorsal surface of the tongue and the palate are so much protected by a thick layer of epithelium and that cows are often so much associated with women, will go far to explain the reason of the comparative frequency with which they become the victims of injuries inflicted by these bodies. Cows, moreover, have very frequently, and particularly in pregnancy, a morbid and voracious appetite, taking into their mouths by the aid of their long and mobile tongues large masses of grass, hay, &c., and after subjecting it to a limited amount of mastication, swallowing it in the form of large pellets which afford ample protection to foreign bodies.

The dog and the cat exercise a far greater amount of discrimination in reference to the materials they select for ingestion, but, as I shall hereafter show, they too, frequently become the victims not only of the accidental, but also of the intentional introduction of foreign bodies into some part or other of the structures of the alimentary tract.

Poultry are also greedy and careless feeders, frequently picking up such small objects as pins and spiculæ of bone, and these substances often become accidentally mixed with their boiled or cooked food.

Pigs, notwithstanding the fact that they are such dirty feeders and such inveterate grovellers in all kinds of filth, escape in a marvellous manner the evil effects following the ingestion of foreign bodies.

Horses, by virtue of the use they make of their wonderfully mobile and sensitive upper lip, very largely reject all foreign elements in their food and except when pressed by hunger and supplied with boiled food or mashes, exercise a wise discrimination in reference to the materials they ingest.

Sheep gather their food between the pad and the incisor teeth. The tongue is delicate and sensitive, and the masticatory movements are rapid and limited.

The bodies usually ingested by animals are pins, sewing needles, pieces of wire, fish-hooks, hair-pins, darning-needles, nails, fish bones, and spiculæ of other bones.

Up to a certain point we can consider the effects of such bodies in a collective sense, but after this they are best considered in an individual sense, but before doing this I would remark that such bodies as fish hooks are only exceptionally met with. In Edinburgh it is a

favourite amusement of the youth of the lower orders and, I regret to say it, occasionally of those who have had better advantages in the way of education; to attach a fish-hook to a piece of twine and after baiting it with some tempting morsel to cast it into one or other of the numerous areas for the fun of seeing a cat becoming caught by the hidden instrument, and in rare instances dogs become the victims of these diabolical acts. I placed on record sometime ago an instance in which the tongue of a cat had become transfixed by a hook which had passed clean through it and penetrated the lower jaw, but in most cases the hook becomes fixed in the palate, the mucus membrane of the fauces or of the pharynx. The horse is the only other animal in whose alimentary tract I have, on one occasion only, seen fish-hooks, and this case is well worthy of special notice in this place. The case occurred in the practice of Mr. Boulton of Bromsgrove, in the year '61 or '62, and I, with other students then studying at the Royal Veterinary College, had—owing to Mr. Boulton having kindly forwarded a portion of the bowels of the horse to the late Professor Varnell—the privilege of seeing a large proportion of the interesting and unique specimens. The horse in question was engaged in work connected with a needle and fish-hook manufactory, and the first occurrence to direct attention to his condition was an attack of colic (followed by others) and the formation of one or more abscesses in the sides and in the flank from the cavity of each of which an unfinished needle was extracted. In the long run the horse succumbed to the effect of the injuries inflicted in the bowels and on *post-mortem* examination a most extraordinary sight presented itself. The large bowels were found literally packed with unfinished needles and fish-hooks which had penetrated the walls of the intestines in every direction. The method by which these bodies had been introduced into the alimentary tract was never, to my knowledge, explained, but the most feasible hypothesis offered was that the needles and hooks had been introduced intentionally through the mouth by some evil-disposed person in the form of packets wrapped up in paper—the practice being to wrap them up in fifties or other numbers for preservation until required for further manipulation.

I have said that up to a certain point we can consider the effects of sharp objects ingested by animals in common. Thus their effects on the mouth, pharynx, and œsophagus are much the same in each case, and the remark applies equally to the passage of foreign bodies through the walls of the stomach or stomachs and intestines into the peritoneal cavity. Foreign bodies may penetrate the tongue, the cheeks, the hard or the soft palate, or they may lodge crosswise between the upper rows of the molar teeth. When arrested in this situation symptoms of stomatitis are established, *e.g.*, inability to masticate, inappetence, salivation, uneasy movements of the jaws, dulness, isolation and fever, and if the object be retained for any lengthened period the mouth contracts a foul odour and the saliva becomes viscid. The dog frequently makes frantic efforts to remove it from the side of his mouth with his paws. As a rule the detection of foreign bodies in the mouth is an easy task as is also their removal, but in effecting the latter it is wise to divide the foreign body by the aid of a pair of nippers whenever it is so fixed as to preclude the possibility of withdrawing it by seizing one or other of its extremities. The subsequent treatment consists of the washing out of the mouth and the application of a weak solution of alum and borax to the injured parts.

Penetration of the pharyngeal and œsophageal walls is comparatively common in the dog and in the cat, especially penetration by pins and needles and, not unfrequently, the latter are armed with cotton or thread which, projecting from the mouth form a certain indication of their presence.

The symptoms induced by the foreign bodies lodged in the fauces, in the pharynx, or in the œsophagus are those of pharyngeal and œsophageal obstruction respectively, while in the first situation they can often be seen and in the pharynx may be felt by manual exploration at least in the cow.

Removal of these bodies from the pharynx and œsophagus is always difficult and often impracticable. I have succeeded admirably in withdrawing needles from the œsophagus of the dog by means of a piece of sponge secured in the end of a whalebone probe. If dislodgement cannot be effected one of two things necessarily follows, *i.e.*, death or the formation of abscess with the external evacuation of the body. In the event of the latter occurring all may go on well, or the evacuation may be followed by sacculation or fistula.

In speaking of the effect of foreign bodies in the alimentary organs proper, it is my intention to refer to them in the first place, in a general manner, and afterwards to direct your attention to their special effects in cattle. On passing into the stomach or bowels, foreign bodies may penetrate the walls of these organs and find their way into the abdominal cavity, ingesta subsequently passing out also by means of the aperture they establish. In this case fatal peritonitis, if a septic character, is most certainly established and the animal may succumb to its effects in the course of a few days, or it may linger on and even appear to be in a tolerable state of health for a comparatively long period.

One instance of the truth of the latter remark I will relate. On the 8th April 1887, I was requested by Mr. Bryce of Craigenturing, near Edinburgh, to examine a cow which had been purchased some four days previously. I was informed that the animal was observed to be unwell on her arrival at the farm (two miles distant from Edinburgh) but this was attributed to the fact that she had been exposed to the injurious influence of a long railway journey and to the further fact that she had only recently calved. One remarkable circumstance attracted the attention of those who had charge of the cow, *viz.*, that the milk (of which she gave a tolerably large quantity for the first few days) had a most unpleasant odour. On the occasion of my first visit (being rather late in the evening) I did not form a decided opinion as to the nature of the ailment from which the animal was suffering, further than that the symptoms pointed to the existence of a considerable amount of gastro-enteric disturbance. At a subsequent visit I at once noticed that the abdomen had materially increased in size and by manipulation satisfied myself that this was due to the presence of fluid in its cavity. On the introduction of a small trochar and canula a dirty turbid fluid having an abominably fœtid odour escaped, and I had no hesitation in giving an opinion to the effect that the cow was suffering from septic peritonitis induced by the passage of a foreign body through the walls of the stomach or of the intestines, and in advising that she be immediately slaughtered. This advice was acted on with all possible dispatch, and the *post-mortem* conditions justified the opinion given—the abdomen was literally full of a sero-purulent fluid which had the vilest odour it has ever been my lot to smell, and from that day to this I have not ceased to wonder how the animal could have lived sufficiently long for such a condition of things to be established. The foul odour of the milk (to me a very interesting phenomenon) must have been due to absorption of H. S. from the abdominal cavity.

Foreign bodies penetrating the stomach or intestines may ultimately be evacuated by means of an abscess formed in the abdominal parietes, they may form abscesses in the walls of the stomach or intestines, they may penetrate the rectum or anus and form rectal or anal

fistulæ or they may become lodged in one or other of the abdominal organs.

Extra-abdominal evacuation is the most common occurrence, but I exhibit (1) a portion of the fistulous rectum of a dog (sent to me by Mr. Hadfield, M.R.C.V.S.), in which the fistula had been caused by the penetration of a fish-bone; (2) a part of the liver of a hen (handed to me by Mr. A. B. Bennet, M.R.C.V.S.) under the capsule of which a number of black pins are lodged—this hen was noted as a pin-eater—and (3) the kidney of a pig (forwarded by Mr. W. Kirk, M.R.C.V.S.), through which a darning needle has passed in a longitudinal direction.

In many instances, foreign bodies are passed through the intestines without producing any evil result and occasionally they are vomited. The most remarkable example of the latter occurrence that has come under my notice was the case of a rice bird. This bird had been noticed to swallow several pins, and as it was a great favourite its owner consulted me as to the probable consequences of the act. After carefully manipulating the crop and failing to discover anything in the shape of a pin, I advised that the bird be fed liberally with raw liver and in the course of a few days the creature ejected a mass of liver projecting from one extreme of which was the sharp end of a pin. It is my privilege to be able to show you the mass of liver in question, and to direct your attention to a remarkable phenomenon in connection with it, *viz.*, that nothwithstanding the fact that it is now some twelve years since I obtained the specimen it has not changed in any way (except that it is a little shrunken from drying) and it possesses the same peculiar odour that it did when it was ejected by the bird. I think there can be little doubt that the pin was dislodged from the proventriculus and that the preservation of the liver for so long a period must have been due to the antiseptic properties of the fluids secreted by that organ.

In some cases foreign bodies instead of travelling in a backward direction pass toward the sternum or the side of the thorax; thus in cows it is no uncommon thing for them to lodge in the connective tissue between the arm and the chest and there lead to the formation of an abscess through which they are ultimately expelled from the system. To two instances only of this kind will I direct your attention—the first occurred in the practice of the Messrs. Lawson, of Manchester, some nineteen years since. The foreign body was a blunt piece of iron about four inches long and as thick as the little finger. It had passed along the inferior aspect of the sternum and had gained exit between the fore-legs, and when I saw the animal I found the contents of the rumen passing in a more or less continuous stream through the fistula which had been produced by the passage of the foreign body. The second case was scarcely of a clinical but rather of a gastronomical character. Some twelve months ago I was dining with a friend (a V.S.) and amongst the viands prepared for the meal was a magnificent chicken (of the Wyandotte breed) six months old. I was so much attracted by the size and condition of the bird that I watched the dismemberment of its carcase with eager interest. Suddenly I thought I detected a somewhat remarkable appearance of the tissue under one of its wings, and on looking more closely I saw what looked like the head of a gold scarf pin. I directed the attention of the carver to the object and on his removing it with the fork my surmise proved correct.

Having briefly glanced at the general aspect of the question under consideration, I will now deal with its most important phase, *viz.*, the effects of foreign bodies penetrating the stomachs and diaphragm of the ox.

On examination of the gastric apparatus of this animal we frequently find in the pouches of the rumen and in the reticulum a heterogenous collection of foreign bodies —*e.g.*, nails, pins, needles, pieces of wire, and, occasionally, pocket knives and dinner forks. Bodies such as these may be in the situation mentioned for an indefinite period without producing any material harm or, at the worst, producing only symptoms of chronic indigestion; or they may penetrate the œsophageal pillars and produce symptoms of a much graver character. Again, small bodies are frequently found fixed in the meshes of the reticulum producing in that situation a limited amount only of inflammation.

In these cases when decided symptoms of chronic indigestion are exhibited without the practitioner being able to assign any satisfactory reason for their production, the advisability of performing rumenotomy and exploring the cavity of the stomach may be considered.

It is when lodged in the anterior pouch of the rumen or in the reticulum that sharp foreign bodies are so apt to penetrate the diaphragm and pass thence into one of the lungs, or (much more frequently) into the pericardium and the heart.

Various forces are in operation to favour the process of penetration in the direction indicated (1) the peristaltic action of the stomachs themselves, (2) the pressure of the abdominal muscles and of the abdominal organs on the stomach in the different acts of defœcation, urination, rumination, and parturition; (3) the rythmic movement of the diaphgram and its rigidity during inspiration; (4) the fact that the pericardium is more immediately attached to the diaphragm than in other animals; (5) the distended state of the cardiac walls in diastole and rythmic movements of the heart.

In an admirable paper on this subject published in the December number of the *Journal of Comparative Pathology*, I observed that Herr Bongartz notices the effect of such acts as parturition in determining the travelling of foreign bodies in an anterior direction, and my own views are in entire accord with his on this point; but I think too little importance is attached to the rigid state of the diaphragm in inspiration and to the combined rythmic movement of the diaphragm and heart; neither is the increased distension of the cardiac cavities under the influence of some sudden excitement taken sufficiently into account.

In a few instances we find that the foreign body passes through the liver, thence through the diaphgram into the right lung, and in one case I found hepatic and pulmonary abscess with adhesion of the lung to the diaphragm anteriorily and of the latter to the liver posteriorly and the rumen again to the liver. In other instances penetration of one of the large lobes of the lung only takes place; pleurisy is established and the lung, diaphragm, and rumen become intimately adherent and effusion takes place in the chest. When passing into the pericardial sac, foreign bodies initiate a pericarditis more or less acute and in most instances of a septic character, and as a result thereof we get enormous thickening of the pericardium and epicardium, as well as of the sub-epicardial tissue, with the formation of numerous villosities in the surface of the epicardium and more or less extensive adhesion.

Hydrops-pericardii or pyo-pericardii always exists to a greater or lesser extent.

Occasionally a purulent cyst or cavity is formed in the structure of the pericardium, and the foreign body is moved in a backward and forward direction alternately between the cyst and the heart wall in which also a kind of cavity is formed. Such a case was brought under my observation sometime ago by Mr. Fairbairn of Cupar. Occasionally also the body penetrates completely through the heart wall and projects into the ventricle—usually left—where it may form a nucleus for the coagulation of blood or lymph and for the formation of a thrombus. On *post-mortem* examination, evidence of the fact that

foreign bodies have been the cause of pleuritic, pulmonary, pericardial, or cardiac lesions is to be obtained in the existence of a tract of new interstitial tissue following the line from which the body has travelled, and in the centre of which a sinus exists whose walls are pigmented as the result of the formation of oxide of Iron. In almost every case the damaged tissues have a fœtid odour. In one case during the past winter we found on *post-mortem* that the coagula of blood contained in the ventricles had begun to soften and degenerate and that they had a markedly septic odour, but there was no actual penetration into the ventricles by the foreign body itself, so that the condition noted must have been brought about by absorption of H.S. gas into the blood.

In considering the clinical characteristics of cardiac and pericardial penetration by foreign bodies, the first question that suggests itself to the mind is—how do these bodies travel such distances through important tissues, and even penetrate the heart wall without producing immediate death and without producing in many instances material *ante-mortem* evidence of the mischief to which they give rise? As a rule the rate of progress of these bodies from point to point is a slow one, and as the foreign body penetrates the tissues in its course inducing inflammation, coagulable lymph is thrown out, and to a great extent protects them from further injury or at the least limits the area of mechanical damage.

It is a well-known fact that sudden penetration of the heart muscle, even by a fine instrument, is apt to produce immediate death by cardiac; but in the cases under consideration the penetration is gradual, and to a large extent, probably intermittent, and the heart accommodates itself to the altered conditions in which it is placed; and so long as this gradual penetration goes on, so long is definite or decided clinical evidence of the lesion wanting, but if, by any chance—as by pressure exerted in violent straining or coughing—the foreign body is pressed onwards with unwonted force, and an extra degree of damage is inflicted, sudden and pronounced evidence of the existence of grave lesions of an organised nature is forthcoming.

Notwithstanding this explanation, and even assuming that it is the correct one, it is often a matter of intense surprise when, on making a *post-mortem* examination of the carcase of an animal that has succumbed to the effects of the lesions induced by foreign bodies, one sees changes of a nature that appear to be incompatible with the maintenance of life, and lesions too that must have existed for a considerable period prior to death.

The clinical signs of traumatic pericarditis and myocarditis are frequently diagnostic, but occasionally they are quite negative, and they may be readily confounded with those of other and totally different lesions.

If the attention of the practitioner is directed to the sufferer in the earlier stages of the disease he will probably find it presenting symptoms of gastro-pulmonary derangement. There may be fickle appetite, alternate constipation and relaxation of the bowels, occasional tympany, rumination, and general dulness; probably the breathing will be slightly accelerated, the pulse beat increased in number and the temperature elevated. Respiration is accompanied by a grunt, there may be a frequent and somewhat painful cough with pain on pressure over the posterior ribs, and absence of sound on ausculation over the extreme posterior part of the ausculatory area. The back may be arched, the nose slightly extended, and the animal may move stiffly or unwillingly.

These symptoms frequently give rise to the supposition that the patient is suffering from contagious pleuro-pneumonia, and particularly so if the disease exists in a herd. In one instance I had no less than three such cases in one lot of seventeen cows to deal with, and I could honestly have challenged any or every practitioner to form a definite opinion as to the nature of the malady.

Some writers on this subject make a special allusion to the existence of cerebral or spinal symptoms in these cases, and particularly so when the foreign body has penetrated the reticulum. While the cow is peculiarly liable to suffer from nervous perturbation as the result of gastric derangement, I am bound to state that although I have sometimes met with such complications they have, in the majority of instances, been conspicuous by their absence.

When hydrops-pericardii (or pyo-pericardii) is established the symptoms usually become diagnostic, though in this case also it is a remarkable fact that very extensive organic lesions may exist with an enormous collection of fluid without the animal exhibiting any marked evidence thereof, until it is submitted to the effects of some adverse influence or to a combination of adverse influences, such as are brought into play in a long railway journey or sea voyage; hence the frequency with which we are called upon to examine cows that have been recently purchased, and which, after being in the possession of their new owners for a few days only, exhibit important symptoms of disease.

The usual symptoms noted in such cases, are, partial or total suppression of all the normal functions, extension of the nose, frequent and irritable cough, marked stiffness in movement, œdema of the connective tissue of the dewlap and sometimes of the fore legs also; pulse usually rapid. I have timed it at 120 per minute, respiration more or less hurried—though not necessarily so—temperature sometimes normal, sometimes greatly in excess of the normal; marked repletion of the jugular veins and, usually, jugular regurgitation is observed. On auscultation the area of the cardiac sound and cardiac dullness is enormously increased, and, not infrequently, there is heard a splashing sound synchronous with the cardiac pulsation; this sound is sometimes distinctly metallic in character, and I have for many years been in the habit of describing it to the members of my class as resembling the sound produced by the rythmic movement of the pendulum of a clock immersed in a basin of water.

Febrile symptoms are always more pronounced in pyo-pericardii than in hydrops-pericardii, but in actual character of the contents of the pericardial sac is easily demonstrated by the introduction of a small trocar and canula or by the use of the aspirator. In most cases the heart sounds are carried well over to the right side, and if the right heart is much hypertrophied and dilated, the pre-pectoral cardiac impulse is very pronounced.

In reference to *treatment* of these cases I need say very little—treatment must be, of necessity, empirical, or at best palliative—and if such a train of symptoms as these above described is presented, slaughter of the animals is the only reasonable course to adopt, and more especially if the fluid withdrawn from the pericardium is turbid, contains pus or gives off a fœtid odour.

In concluding these necessarily discursive remarks on a subject too wide for consideration within the limits of a paper intended for discussion, I would remark that the obvious lesson to be drawn from what I have stated is, to impress upon all persons having charge of animals—and more especially of cows—the vital necessity which exists of carefully avoiding the introduction of foreign bodies into any materials intended for their food. I do not exaggerate when I say that the annual loss to stock owners from the injuries inflicted in their stock by the ingestion of foreign bodies exceeds that produced by any half dozen diseases—even those of an ordinarily fatal character—combined; and emphatically say, that when those who are associated with animals observe such a

comparatively insignificant object as a pin lying within their reach, they ought, instead of heedlessly passing it by with the remark, "it is only a pin," to take the trouble to remove it from harm's way.

REVIEW.

A PRACTICAL GUIDE TO MEAT INSPECTION.

Professor Walley deserves the thanks of the profession for this "Practical Guide to Meat Inspection." The fitness or unfitness of meat for human consumption has become a question of great public importance, and every year will see increasing attention given to the subject. The public will not much longer remain content to accept all the diseased flesh now sold them with the simple faith that prevailed before the days of School Boards. We used to eat in ignorance, and even when the coroner had to investigate fatalities directly traceable to diseased meat we were content to pity the victims and call the catastrophe an accident. We are getting wiser—we now know that many deaths and much disease are directly due to the consumption of diseased meat, and we are quite prepared to find that some of our common serious diseases may be directly traced to it. The veterinary surgeon will be more frequently consulted as to the condition of carcases and organs used as food, and it is of the utmost importance that he should be well versed in the whole subject. For his own sake and for the credit of his profession he must be able to apply his veterinary knowledge so as to protect the meat consumer and to do justice by the meat salesman. Professor Walley's book will be most useful to every practitioner, as it contains the result of years of experience, and is a very successful attempt to arrange and systematise the subject. For those who may not be able or willing to study the whole subject a very good index renders the book a handy and complete work for reference when any difficult case arises.

The author leads off with a chapter on the importance of meat inspection, in which he unfolds the traffic of the "carrion butcher." This alone is argument enough to enforce the necessity of thorough inspection. Dwellers in large towns are the great consumers of "carrion" which, though sent us by the butcher who of course is legally responsible, might well be credited equally to the stock-owner who, for the sake of a few shillings, knowingly sells the dead or dying animal.

The distinguishing features of animal flesh and the more important organs that are used for human food are discussed fully and in detail, whilst the physical changes in meat which afford evidence of its fitness or unfitness for consumption are treated of in a separate chapter.

A very useful chapter is that in which the rules to be observed in the inspection of meat are considered. The largest amount of space is given to the effects produced by various injuries and diseases. Some of these we think might well have been omitted. The most important diseases are treated separately, as—Parasitic diseases, Anthracoid diseases, Tuberculosis, and Ptomaines. Next we have a reference to Preserved and Tinned Meats and Fish, which suggests one of the difficulties of the question. How are we to inspect all the Meat—fresh and preserved—which comes into the country? The book concludes with a chapter or two on legislation in reference to the consumption of animal flesh, and sundry Acts of Parliament which make some attempt to regulate the trade. Copious illustrations help to elucidate the text and quite a large number of coloured plates are supplied which show very clearly the changes in tissues resulting from some of the more dangerous diseases. Professor Walley has written a great deal for our edification but he has written nothing more useful than this little treatise, and we unhesitatingly advise our readers to buy it *and to read it.*

A Practical Guide to Meat Inspection.—By Thomas Walley, M.R.C.V.S., Principal of the Edinburgh Royal (Dick's) Veterinary College. Edinburgh and London: Young J. Pentland.

EXTRACTS AND NOTES.

From Report on the Competition for the Horse-shoeing Prizes at Exeter, with observations on the General Treatment of Diseases of the Horse's Foot.

By T. D. Broad, F.R.C.V.S., Bath.

(The Journal of Bath and West of England Agricultural Society.)

Fifty smiths entered from different parts of the country, and of these thirty-nine put in appearance. Owing to the number of competitors, the work occupied the greater part of the day. The competition was exceedingly good, and the work, taken altogether, was never so well done at any previous meeting. The competitors, who were required to provide their own tools and a striker, had to take off one fore-shoe, prepare the foot, then to make a shoe, fit it, and nail it on. Before the competitors commenced work, the Judge showed them a dead foot shod, as a pattern illustration of the principle on which they were to act in the preparing the foot, and the making and fitting of the shoe; but smiths who had previously won a first prize in any of these competitions were not allowed to enter the contest on the present occasion.

During the twenty-five years that the Society has held shoeing competitions, the average time taken to do the work has been from thirty to forty minutes; on one occasion, however, a competitor did it in eighteen minutes, including the making of nails, and the work was so well done as to gain the first prize. For the last five years the Society has provided nails, but the competitors are at liberty to use their own. The average time at this com-

petition was nearly forty minutes; the longest time occupied being sixty-six minutes, and the shortest twenty-six minutes.

For the prizes offered yearly by this Society the shoeing of one fore-foot is held sufficient to te t the skill of the competitors without requiring them to shoe a hind-foot, which, in case of there being a large number of entries, as in the present competition, would occupy at least another day without a corresponding benefit, since I have never known a smith who could make a good fore-shoe for a hack or carriage horse and fit it well who could not also shoe a cart-horse well, or make and fit a hind-shoe equally well. The Royal Agricultural Society, at its two last Shows, has adopted the plan of giving prizes for the shoeing of one fore and one hind foot; but, judging from the controversy that has taken place since the Windsor Show, it does not appear to have worked quite satisfactorily; as when the competition goes on for two or three days the horses shod cannot conveniently be kept together for all the work to be examined by the Judges at the same time, and it is impossible to judge it fairly by any other means. The object always had in view by the Bath and West of England Society has been the improvement of the work of country smiths, and I do not see any advantage in a society inducing London farriers to enter into these competitions, having their doorman to prepare the feet and nail on the shoes; indeed, the Shoeing by most of the West-end London farriers is as well done as it is possible to be, and the only improvement that I have seen in their work during the last fifty-three years has been the discontinuance of the excessive cutting of the soles and frogs.

This Society has during the last twenty-five years done very much towards bringing about improvements in shoeing; previous to that time it was badly done in many towns, and in nearly all country places. The plan of Shoeing at the Society's Annual Meeting is that of the ordinary seated or concave-foot-surface shoe, that being the only shoe applicable to any kind of foot.

It has been generally stated by writers on Shoeing that but for the cutting away of the frogs with the knife all horses would have good frogs, which would act as buffers; but such is not the case, as all horses will not have good frogs, under the Charlier or any other plan, or even if used without shoeing; in fact, many horses have not good frogs when in a state of nature unshod. Most authors advocate very light shoes; but, putting out of question the Charlier plan, the writer prefers stout ones for hard-working horses on pitched streets or hard roads, as they lessen the jar or concussion, and bad feet require them more than good ones. It may be taken as a rule, that in proportion to the lessening of the weight of a horse's shoes so will he lessen his action, thus affording proof that, with very light shoes, he finds that his feet are more jarred than when shod more stoutly, consequently he does not lift them off the ground so high; this, however, does not apply to horses which are ridden mostly off the road.

For fairly testing any plan of Shoeing it must be by horses which do a fair day's work, not by those which do about an hour's quiet work in the course of the day. Leather soles are very beneficial in lessening concussion, and the prevention of injury to the soles and frogs from picking up nails and other things. The pitched streets and hard dry roads, as well as hereditary predisposition, have a good deal to do in the production of diseases of the feet. The number and position of the nails are now known to be of much less consequence than they were formerly supposed to be. Injury to the feet is more likely to occur from using too few nails than from using one more than is supposed to be necessary to keep the shoe on; as when so few nails are used, and one happens to break off under the head—which is not an uncommon occurrence, especially where five nails only are used—the probability is that the shoe will become loose, and possibly cast before the rider has finished his ride, and the foot possibly broken, so that it may require several weeks' growth before it has recovered its natural appearance, whereas an extra nail does no harm if properly driven. As to the contention that the nails ought to be driven in a more oblique direction, and not so high up as is now done, the plan could only be carried out on horses with good strong feet and a large amoont of crust; as with a very great proportion of ordinary working horses, and those with flat or thin, weak feet, it would be impossible.

Professor Smith has lately been trying to prove that the foot expands every time that it comes in contact with the ground, but he has not brought forward anything new in proof of his theory. The writer has not believed in the expansion theory since hearing Mr. Charles's paper read at the Veterinary Medical Association in 1837. And the experiments on the expansion of the horse's foot by Mr. J. W. Gloag, as reported in the *Veterinarian* of 1849, still further confirmed him in that view. The writer's views of the physiological action of the foot is that, on the bottom of the foot coming in contact with the ground, the wall at the coronet slightly expands.

The action of a toe sandcrack shows that a slight expansion takes place in the upper part of the foot when it comes in contact with the ground, and it also proves, from the shape of the foot, that no such action can at the same time take place at the lower circumference of the foot, but rather that it is slightly constringed.

Before preparing the foot for a shoe the smith ought to take a front and side view of the foot on the ground to see whether the toe or heels require the most rasping to bring the foot to its proper angle and shape, as some feet grow more at the toe, whilst others grow more at the heels, and others again grow more on the inside half than on the outside, in which case fit the shoe close on the inside and full on the outside. When feet are much overgrown it is necessary to use the knife; but when shod regularly, it will seldom be necessary to do more than remove what flakes of sole are loose, and to cut away the inside bar sufficiently to prevent its taking any bearing on the shoe at the seat

of corn, otherwise it will in all probability soon produce one. There are many feet that do not require the least cutting or reducing when about to be re-shod.

Hot or Cold Fitting of Shoes.—All practical men who have given an opinion on the subject are unanimous in recommending hot-fitting in preference to cold, the latter being only justifiable when it is impossible to adopt the former. Dr. Fleming, in his work 'Horse-Shoes and Horse-Shoeing,' has gone thoroughly into the subject and advises hot-fitting; but before applying a hot shoe to the foot, the fitter ought to see that the shoe and the foot are both level, otherwise the foot will receive unnecessary charring. I began to practise on horses' feet in 1830, and my experience teaches me that in a forge where good workmen are employed, it is very rare for a horse to be seriously injured from a nail having been driven into or too near the sensitive part of the foot; that is, if the foot be properly cut out and attended to as soon as the horse is seen to be lame.

During the last few months a nailless shoe has been largely advertised, and as I understand that the syndicate is very liberal, I presume that it has not had much difficulty in obtaining favourable reports from veterinary surgeons and others, who state that the shoe can be put on by any ordinary person in three minutes, whereas it takes a farrier fifteen minutes to put on an ordinary shoe; but neither of the veterinary surgeons has informed the public that the nailless shoe requires to be nicely fitted before it can be adjusted to the foot, and that to make it and fit it, with all its appliances, would take at least six times as long as a farrier would require to make an ordinary shoe and fit six ordinary ones, while there are a large number of flat, thin, weak feet which would not admit of the studs being let in sufficiently to be of service in keeping the shoe in place, and I do not see in what way it can act better than an ordinary shoe in preventing cutting or sandcracks, and no practical person could fairly state it to be a shoe suitable for the army. In 1839, M. de Gournay brought from France a number of nailless shoes made as nearly as possible like the present nailless shoe, having ears, studs, band, and the kind of crotchet at the front of the foot.

India-rubber pads on leather enable many horses, whose feet are not sound, to work free from lameness; they also tend to prevent slipping. This is especially the case with Urquhart's "bar pads," respecting which my veterinary friends at Manchester, where they are largely used, inform me that they prevent slipping quite as much, if not more, than the Charlier plan of shoeing does. They are used on fore and hind feet by those persons who do not object to the extra expense, but, like the Charlier, they are not suitable in all cases; horses with flat, thin heels, and weak feet do not as a rule go well in them.

A POLICEMAN had a pair of boots half-soled last autumn with a boarding-house beefsteak, and he hasn't had wet feet all the winter.

HERBERT SPENCER'S PHILOSOPHY.

The actual fleshing out of Mr. Spencer's great skeleton scheme is contained in the many volumes of the "System of Synthetic Philosophy," which amounts, in fact, to a reasoned enclydopædia of evolutionary doctrine.

The opening treatise of the series is "First Principles." This consists of two parts, the earlier of which contains Mr. Spencer's fundamental conclusions as to the cosmos in itself, and is called "The Unknowable." Analysis of ultimate religious ideas, and of ultimate scientific ideas, leads alike to the discovery of a common principle, that a Power underlies the Universe, utterly inscrutable to us. Current religions endeavour to explain this power to us, to get rid of its mystery, to assert of it sundry human, or spiritual, or material attributes. Mr. Spencer, who is neither Materialist nor Spiritualist, insists that the mystery of the universe is an absolute, not a relative one: he considers every phenomenon, material or mental, as a manifestation of an unlimited and incomprehensible Power, which he knows only as the Unknowable, and which, as he argues, no human thinking can ever know in any other fashion.

The second Part of "First Principles" passes on from the consideration of the Universe as it is in itself to the consideration of the Universe as it manifests itself to man—and deals therefore with the Knowable, but always in its most generalized aspects.

The next two volumes of the Synthetic Philosophy are devoted to "The Principles of Biology," and treat of the application of the Law of Evolution to the developement of plant and animal organisms.

The Biology is on the whole by no means unsuited for public consumption. It sets out with the epoch-making definition of life as "correspondence with the environment," or more fully, as "the continuous readjustment of external to internal relations." It shows that the degree of life varies as the degree of correspondence, higher organisms being those in which the correspondence is greatest. And it then proceeds to treat in detail of the evolution of plants and animals in their widest aspect.

To the general reader, one of the most interesting parts of the Biology is certainly that which treats of the reproductive functions in plants and animals—a subject commonly supposed to enclose a profound mystery, but which in Mr. Spencer's hands becomes as clear as crystal. Reproduction is not in itself one whit more mysterious, indeed, than growth and repair, or the restoration of lost parts. In the lowest organisms, its proceeds by simple splitting of the whole into two halves, each of which of course possesses all the general features of the original totality. In higher organisms, it proceeds by the separation from the mass of a smaller fraction, which however has equally the power of rebuilding from suitable material an entire body like that of the parent, much as a crystal rebuilds itself from the mother liquid, or as a slip or cutting develops into an entire tree. Mr. Spencer's doctrine of

genesis and heredity, in fact, is the most philosophic and satisfactory account yet given of the whole process, and though difficult to abstract in brief, it is not at all above the comprehension of the ordinary reader who chooses to study it with the necessary attention.

Still more interesting is the section on the Evolution of Life, in which all the arguments in favour of the evolution hypothesis—arguments from classification, from embryology, from morphology, and from geographical distribution—are marshalled together in battle array; while the contrary hypothesis of special creation is reduced by crushing logic to an impalpable pulp, and finally relegated to the nethermost limbo of impossible concepts. But perhaps the most delightful part of all is the second volume of the Biology, where Mr. Spencer reconstructs for us in his own inimitable manner the history and causes of the shapes and organs of plants and animals, and the way in which their various component tissues have most probably been specialized for their existing functions. In such reconstructive work, requiring a high exercise of scientific imagination, Mr. Spencer is on comparatively new ground, and his view of the steps by which life assumed its diverse forms and characters is marked by an extraordinary degree of what may be called the pictorially historical faculty. Every man who wishes to know what Life really is, how it came into being, whither it tends, and what are its relations to the universe around it, cannot afford to disregard the Principles of Biology.

After Life, Mind. The next two volumes of the series contain "The Principles of Psychology." They are undeniably deep, and very hard reading, but those who are not afraid of tackling highly abstract thought will find in them a most vivid account of the way in which Mind, like Body, may have been naturally evolved as correspondence with the environment.

"The Principles of Sociology" are as yet incomplete, only one volume and some parts of a second having been so far published.

In sum, then, what is the pith of Herbert Spencer's Gospel?

Know yourself, and your own place in the universe about you. Fear no phantoms, but face realities. Understand your own Body, and the light cast upon it by the analogy of other bodies. Understand your own Mind, and the light cast upon it by the history and evolution of other minds. Understand the phenomena, organic or inorganic, physical or psychical, by which you are surrounded, and the laws to which they severally conform. Understand the Society of which you are a member, and learn from like analogies the origin and functions of its various parts. So, in your capacity as individual, will you govern your own path through the world aright; so, in your capacity as parent, will you produce and bring up better units for the composition of the Society in future; so, in your capacity as citizen, will you help to mould the State, of which you are a part, to ultimate conformity with Truth and Justice.

In contradistinction to all the preachers of Faith—that is to say of contented and uncritical Ignorance—Mr. Spencer stands forth as the preacher of Knowlege. He alone has taught us the orderly development of the cosmos as a whole, and of every one of its component parts, in accordance with a single universal law of synthetic developement.

(GRANT ALLEN:—*Pall Mall Gazette.*)

Irish Store Cattle.

There can be no question that the traffic in store cattle may be rendered much more safe between Ireland and this country than between the American continent and England. Not only so, but the materials are better, the use of Booth bulls for generations having graded up the general run of Irish cattle to a degree that will be reached in America only after many years. We are therefore in favour of the Irish store trade in preference to the American traffic, although we regard it at the best as only a painful necessity. But if we are to have store cattle from Ireland, it is absolutely essential that pleuro-pneumonia should be stamped out in the Dublin dairies. So long as the pest remains there the shipping of cattle from Dublin can scarcely be safe.—*Live Stock Journal.*

The Islington Vestry and their Vet.

There was considerable discussion at the Islington vestry (Rev. W. H. Barlow in the chair) as to the duties and emoluments of the parish "horse coroner." Mr. Heron, who at present holds office, had applied to be allowed to take some private practice in order to increase his income; but this brought from the Works Committee a recommendation that the appointment be declared vacant, and a successor to Mr. Heron be advertised for. Mr. Watts, who moved this, brought allegations of neglect of duty against Mr. Heron, and suggested that a thousand cases of disease among horses had occurred which had not been entered in the books. Mr. Heron was called before the Board to make explanation, and he at once overturned this last allegation, because he said he was paid by results as stated in his books, and was not likely to omit a thousand cases. He admitted that he did not see every horse as it was brought to the yard, because that would necessitate his attendance night and day; but he had arranged with an official at the yard that the latter should take notes of the cases as they came in in his (Mr. Heron's) absence, and then that these notes be compared with the actual condition of the animals when subsequently inspected by the principal. Not one case had gone into the yard which had not been seen and reported upon by him (Mr. Heron). It was true he had advertised for a pupil, but did not get one; but it was not true that he had a partner, though another veterinary surgeon lived in the same house, and he (Mr. Heron) occasionally assisted him. Mr. Lawrence: And you have done this notwithstanding the order of the Works Committee that your sole attention should be given to your appointment. Mr. Heron: Yes, but £160 per annum was considerably

less than I expected to realise from the appointment. In the result the recommendation of the committee to declare the appointment vacant was carried by 35 to 26 votes.—*Chemist and Druggist.*

The Islington Horse-Coroner.

The treatment meted out to Mr. Herron, M.R.C.V.S., by the Islington Vestry is not generally approved in the District. A local paper—*The Islington Gazette*—in its issue of April 15th says, "a majority of the Islington vestrymen have a very exalted idea of the worth of money, but a very diminished one as to the value of a professional man. Fancy a gentleman passing his examinations at the Veterinary College, fully qualifying himself, and expected to live and and keep up appearances on £3 a week!

The same paper in its issue of April 22nd, publishes a letter from which we take the following.

How does the vestry console itself that the duty will be performed efficiently by the present occupant of the post, whose only education for the post has been a clerkly one. And yet Mr. Herron reports that nearly one out of every twelve of the animals were either affected by glanders or farcy. The Vestry ought, when next re-adjusting their committees, to see that some of those who have shown such ignorance, be replaced by men who will see that they first understand the requirements of the Acts of Parliament, before they are allowed to sit in judgment on a well qualified veterinary surgeon, who, no doubt, has made enemies in the exercise of his duty.

On Journalists.

"As the sages of Laputa kept men to remember for them what they were themselves too sublimely occupied to recollect, so," said Chief Justice Coleridge, "our great nation was content to keep and pay men to do their thinking and concluding for them, and adopt the thoughts of others for their own. Who were they who laid down the law for us day by day? Where did they come from? What did we know of their characters? Sometimes by chance we knew an editor, and generally he was found to be a much poorer creature in the flesh than in the pages of his publication. People who quoted printed works as words of wisdom would often be entirely unimpressed by the same sentiments in the mouths of their authors delivered personally across the dining or drawing-room." There is much truth in his lordship's remarks. The journalist outside his columns shows often as diminished a glory as the judge off his bench.—*Pall Mall Gazette.*

Fatal Accident to a M.R.C.V.S.

A paragraph in the *Stourbridge and Brierley Hill Express* says "Mr. Smith, Veterinary Surgeon, was returning to Kidderminster from a business call in Bewdley Forest on Thursday evening, when he fell from his horse and received injuries which he did not long survive." As the christian name is not stated, we can only suppose that the decease is Mr. R. J. Smith, who graduated in London in 1882.

Signs of Spring.

In the spring comes out, loose jointed,
From his hole the doodle bug.
In the spring the wasp, sharp pointed,
Stabs the baby on the rug.

In the spring the crawling leeches
Up the creek their headway make,
And the country maiden screeches
Stepping on the garter snake.

University Gazette (Montreal).

CORRESPONDENCE.

We shall be obliged by early intelligence of all matters worth bringing under the notice of the profession, and thankful to our friends who may send us cuttings from local papers, containing facts of interest.

Original articles and reports should be written on one side only of the paper, and authenticated by the names and addresses of the writers, not necessarily for publication.

Communications for the Editor to be addressed 20 Fulham Road, S.W.

THE REGISTRATION OF FARRIERS.

SIR,

I am much surprised that more veterinary surgeons have not written to protest against the R.C.V.S. having anything to do with the above scheme. In the country a veterinary surgeon is a farrier, at least this is his common name, and if we look in the dictionary a farrier is a horse doctor, so if the Royal College of Veterinary Surgeons give farriers a certificate, the greater part of the public will look upon them as "fully qualified to practice the art and science of veterinary surgery," hence the poor country vet. will have a harder time of it in the future than he does now, thanks (Mr. Editor) to you, and others who should know better than to register Shoeing-smiths as Farriers.

"A COUNTRY VET."

[It has never been proposed that the R.C.V.S. should give farriers a certificate, nor is anyone going to "register Shoeing-smiths as Farriers."—ED.]

THE NEW REGISTER.

SIR,

Nearly three years ago I changed my residence, and wrote to the Secretary of the R.C.V.S. intimating the same, and asking that my address might be altered in the next issue of the Register. Some eighteen months afterwards I found this had not been done, and I wrote again mentioning that I had written before. On obtaining the new Register to-day, I find that the address still remains the same. Whose is the fault? I trust this is an exceptional case, otherwise the confused state of the Register is not to be wondered at.—Yours faithfully,

JNO. J. BURCHNALL.

STUDENTS' FEES—A SUGGESTION.

SIR,

It has generally been the way, prior to the examination held by the Royal College of Veterinary Surgeons, that the students are required to go to Red Lion Square for the payment of fees. Would it not be more reasonable that instead of a couple of hundred students wasting more than an hour in trudging to the Square, when they are more than usually busy, that the Secretary should come down to the Veterinary College and there receive the students' fees.—Yours truly,

"A VETERINARY STUDENT."

[Think of the Dignity of the College.—ED.]